

## Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 11698-1 (2004): ISO Miniature screw threads, Part 1:  
Basic profile [PGD 20: Engineering Standards]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”





BLANK PAGE



PROTECTED BY COPYRIGHT

भारतीय मानक  
आई.एस.ओ. मीनियचर पेंच चूड़ियाँ

भाग 1 आधारभूत प्रोफाइल  
( पहला पुनरीक्षण )

*Indian Standard*  
ISO MINIATURE SCREW THREADS  
**PART 1 BASIC PROFILES**  
( *First Revision* )

ICS 21.040.10

© BIS 2004

BUREAU OF INDIAN STANDARDS  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

## FOREWORD

This Indian Standard (Part 1) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Engineering Standards Sectional Committee had been approved by the Medical Instruments, General and Production Engineering Division Council.

This standard (Part 1) was first published in 1986 and was based on ISO/R 1501 - 1970 'Miniature screw threads' and DIN 14 — Part 1 'ISO metric screw thread — Screw threads under 1 mm diameter : Part 1 Basic profile'. ISO/R 1501 - 1970 has been withdrawn and DIN 14 — Part 1 has been revised in 1987. Therefore, this standard (Part 1) has been revised and aligned with DIN 14 — Part 1:1987 'ISO metric screw threads — Screw threads under 1mm diameter : Part 1 Basic profile', issued by DIN, Deutsches Institut für Normung.

This standard is one of the series of Indian Standards on miniature screw threads and being published in four parts. The other three parts in this series are:

Part 2 Basic dimensions for design profile

Part 3 Tolerance

Part 4 Limits of sizes

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard*  
**ISO MINIATURE SCREW THREADS**  
**PART 1 BASIC PROFILES**  
*(First Revision)*

### 1 SCOPE

This standard (Part 1) covers the basic profiles of ISO miniature screw threads in the diameter range of less than 1 mm.

### 2 SYMBOLS

The various symbols used in this standard shall denote the quantities mentioned below against each:

$D$  = major diameter of internal threads,

$d$  = major diameter of external threads,

$D_1$  = minor diameter of internal threads,

$d_3$  = minor diameter of external threads,

$D_2$  = pitch diameter of internal threads,

$d_2$  = pitch diameter of external threads,

$P$  = pitch of screw threads,

$H$  = height of fundamental triangle, and

$H_1$  = height of basic profile.

### 3 BASIC PROFILE

The basic profile is the theoretical profile associated with the basic sizes of the major, pitch and minor diameters and shall be as given in Fig. 1. The deviations are applied to these basic sizes.

### 4 BASIC PROFILE DIMENSIONS

The basic profile dimensions shall be as given in Table 1 read with Fig. 1.

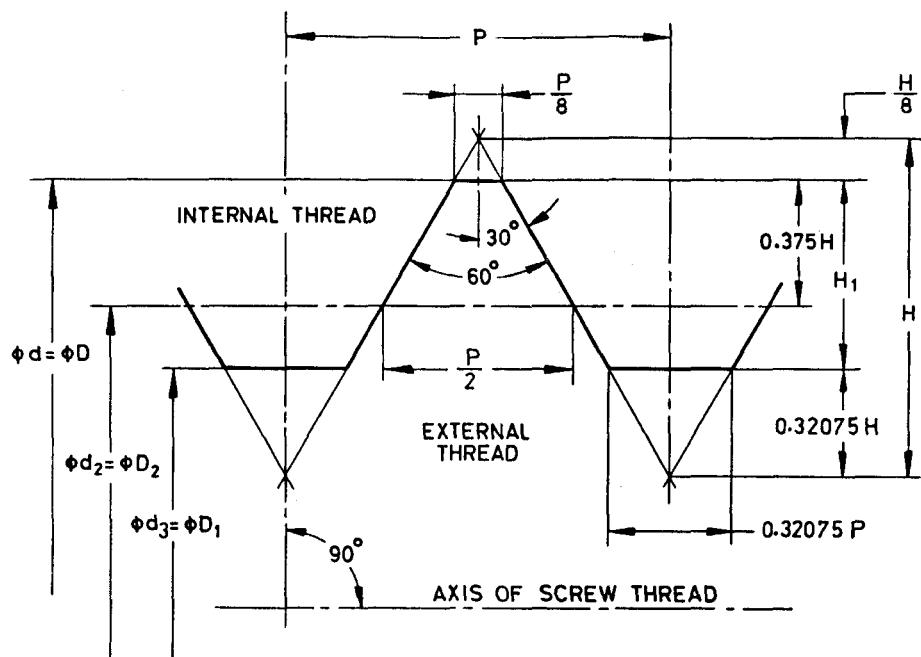


FIG. 1 BASIC PROFILE OF ISO MINIATURE SCREW THREADS

Table 1 Basic Profile Dimensions

(Clause 4)

All dimensions in millimetres.

Sl No.	Pitch $P$	$H$	$0.144 \cdot 34 H$	$H/8 = 0.125 H$	$0.320 \cdot 75 H$	$0.370 \cdot 37 H$	$H_1 = 0.55425 H$	$0.375 H$
(1)	(2)	0.86603 $P$	$P/8 = 0.125 P$	0.10825 $P$	0.27778 $P$	0.32075 $P$	0.48 $P$	0.3248 $P$
i)	0.08	0.06928	0.01000	0.00866	0.02222	0.02566	0.03840	0.02598
ii)	0.09	0.07794	0.01125	0.00974	0.02500	0.02886	0.04320	0.02923
iii)	0.1	0.08660	0.01250	0.01082	0.02778	0.03207	0.04800	0.03248
iv)	0.125	0.10825	0.01560	0.01353	0.03472	0.04009	0.06000	0.04059
v)	0.15	0.12990	0.01875	0.01623	0.04166	0.04811	0.07200	0.04871
vi)	0.175	0.15155	0.02187	0.01894	0.04861	0.05613	0.08400	0.05683
vii)	0.2	0.17320	0.02500	0.02165	0.05556	0.06415	0.09600	0.06495
viii)	0.225	0.19485	0.02812	0.02435	0.06250	0.07216	0.10800	0.07307

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 1986* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

## Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

## Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc: No. MGP 20 (467).

### **Amendments Issued Since Publication**

Amend No.	Date of Issue	Text Affected

## BUREAU OF INDIAN STANDARDS

**Headquarters:**

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002

*Telephones:* 2323 0131, 2323 3375, 2323 9402

website : [www.bis.org.in](http://www.bis.org.in)

### **Regional Offices:**

Central	: Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 2323 7617 2323 3841
Eastern	: 1/14 C.I.T. Scheme VII M, V.I.P. Road, Kankurgachi KOLKATA 700054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
Northern	: SCO 335-336, Sector 34-A, CHANDIGARH 160022	{ 260 3843 260 9285
Southern	: C.I.T. Campus, IV Cross Road, CHENNAI 600113	{ 2254 1216, 2254 1442 2254 2519, 2254 2315
Western	: Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	{ 2832 9295, 2832 7858 2832 7891, 2832 7892
<b>Branches</b>	<b>AHMEDABAD. BANGALORE. BHOPAL. BHUBANESHWAR. COIMBATORE. FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR. KANPUR. LUCKNOW. NAGPUR. NALAGARH. PATNA. PUNE. RAJKOT. THIRUVANANTHAPURAM. VISAKHAPATNAM.</b>	